A PRIMER

for

THE GENERAL PRINCIPLES OF GYMNASTICS

by

PEHR HENRIK LING

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SECTION ONE: THE LAWS OF THE HUMAN ORGANISM

Outline

1. The human organism as one whole.
2. Life and material.
3. The three groundforms.
4. Eternity of the phenomenon.
5. Health and illness.
6. The mechanical groundform.
7. The chemical groundform.
8. The dynamical groundform.
9. The three groundforms as found in Nature.
10. The three groundforms in the individual.
11. Birth.
12. Death.
13. The harmony of the three groundforms in the organism's external behavior.
14. The cooperation of the three groundforms within the organism.
15. The psychological aspect of the groundforms.
16. The connection between the psychical and the physical.
17. The animalistic and the mental.
18. The influence from the external mechanical treatment on the organism's inner [state].

Quotes

The vital phenomena may be arranged in three principle or fundamental orders: 1st, Dynamical phenomena, manifestations of the mind, moral and intellectual powers. 2nd., Chemical phenomena, assimilation, sanguification, secretion, nutrition, etc., 3rd., Mechanical phenomena, voluntary and organic; respiration, mastication, deglutition, circulation, etc.

The union and harmony of these three orders of phenomena characterize a perfect organization, and every vital act is accomplished under their combined influence.

If any serious derangement occurs in any of the phenomena, the result is always a disturbance of the vital functions, which we call disease.

The state of health depends, accordingly, on the degree of equilibrium and harmony existing between the functions of those tissues or organs in which these three orders of phenomena occur.

When harmony is deranged, in order to re-establish it, we should endeavor to increase the vital activity of those organs whose functions have a relation to that order of phenomena whose manifestation is decreased or weakened.

Notes

Ling's theory of physiology is based on a natural philosophy perspective, and contains elements from vitalism, an 18th century philosophy which attempted to integrate new scientific discoveries with old beliefs about life.

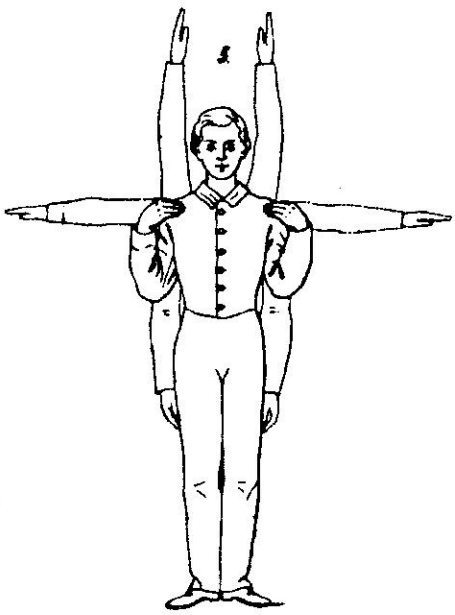
SECTION TWO: THE PRINCIPLES OF EDUCATIONAL GYMNASTICS

Educational gymnastics, in which a person teaches themself to place their own body under their own will.

Educational gymnastics develop the congenital tendency to unison between various parts of the organism.

Outline

1. The elements of gymnastics.
2. The meaning of educational gymnastics.
3. The sphere of gymnastic movements.
4. Movements without apparatus.
5. Simple movements.
6. Combined movements.
7. Balancing.
8. Walking.
9. Jumping.
10. Swimming.
11. Movements with apparatus.
12. Heaving movements.
13. Climbing.
14. Climbing on the square ladder.
15. Span-bending movements.
16. Balancing on small surfaces with weights.
17. Vaulting on the wooden horse.
18. Vaulting on the living horse.
19. Gymnastic games.



Quotes

...no movement has any value if it is not in keeping with the true conception of the organism. It is only of value in connection with the true conception of the organism, and its worthlessness lies only in its incorrectness, either in a physical respect, as being impossible, or in a moral respect, as not having a connection with the real aim of education, that is, harmony in the organism; because a body which is not at peace within itself is also in conflict with its spiritual nature.

A child ought not to begin a public gymnastic education until its seventh or eighth year...Cats and squirrels are half grown before they begin to climb trees.

A reasoning being can no more progress in a true mental or physical education without joy, than the cooperation of the soul with the body can be separated in this life...Innocent joy ought to permeate the whole, but cannot be separated from the true aim of gymnastics, which is the...harmonious development [of the body], and not of a one-sided egotistical playing of a certain physically made chord.

A contest during most usual gymnastic exercises, on ropes or poles, for instance, should be regarded as play; if not, it is being overdone.

Notes

A translation of this section by Richard Cyriax appeared in the American Physical Education Review, V. 17 N. 12, December, 1912. Also see A History of Physical Education and Sports in the USA by Mabel Lee (1983), and Innovators and Institutions in Physical Education by Ellen W. Gerber (1971).

SECTION THREE: THE PRINCIPLES OF MILITARY GYMNASTICS

Military gymnastics, in which a person, either by means of some external object, such as a weapon, or by their own physical power, tries to subject another person's will to their own.

Military gymnastics aim at securing unison between a body and a weapon in relation to the actions of an adversary.

Outline

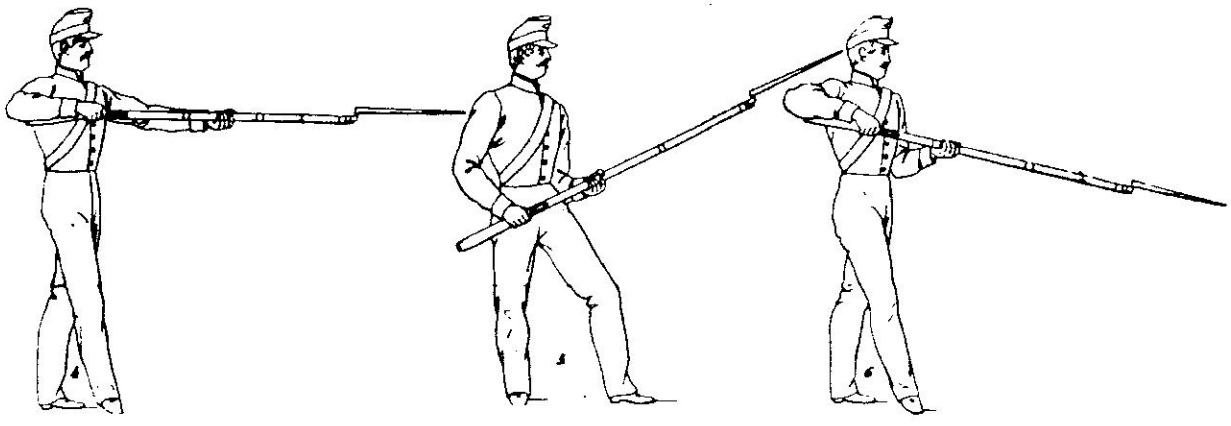
1. Movement of the weapon in general.
2. General rules for individual weapon movement.
3. General requirements of weapon movement.
4. About attack and defense.
5. About taking cover.
6. About Unity in the basics for weapon movement.

Notes

Military gymnastics appears to be a special case of educational gymnastics with the added complication of a weapon and an adversary. Whereas, educational, medical and aesthetic gymnastics are focused on establishing, maintaining or restoring harmony within the human organism, military gymnastics deals with factors outside of the person.

The inclusion of military gymnastics in Ling's philosophy of human movement is probably due more to expediency and personal interest than to any inherent logic in his system. There was a great deal of concern for national defense in Sweden in the early 19th century. The Royal Central Institute of Gymnastics in Stockholm founded in 1813 by royal decree was at first primarily a place for the training of soldiers, and development of Ling's system of bayonet fencing and military gymnastics.

Ling published two manuals related to military gymnastics: Regulations for Bayonet Fencing (1836), and The Teaching of Gymnastics and Bayonet Fighting to Soldiers (1838).



SECTION FOUR: THE PRINCIPLES OF MEDICAL GYMNASTICS

Medical gymnastics, in which a person, either by assuming a suitable position, or by means of the help and movements of someone else, tries to relieve or cure the suffering which has arisen in their body owing to its abnormal condition.

By means of medical gymnastics, an attempt is made to reestablish the unison which should exist between the various parts of the organism which has been lost owing to the latter's abnormal condition.

Outline

1. The relationship between active and passive movement.
2. The preference of passive movement at illness.
3. Signs of illness.
4. Illness and signs of illness.
5. Illness of the nervous system.
6. Illness of the circulatory system.
7. Illness of the secretion system.
8. Illness of the muscular system.
9. Illness of skin and fever.
10. Illness of the skeletal system.
11. The quantity of medical movement.
12. The quality of medical movement.

FIG. 7.—Kneading with the Two Thumbs.

Quotes

Medical gymnastics movements can...be divided into three kinds: a) total passive; b) half passive and c) active-passive. In the first kind, the subject is in complete rest, completely or half-lying (using strokes, rolls, grinds, etc.), complete or half-sitting (using chest lifting, flying, etc.). In the second kind, the subject is commonly standing, sitting or lying, but self [the patient] creates an angle in the arm, leg, back or neck... In the third case, the position is on the knees, or with legs spread, or forward leaning, or on the knees lying, sitting or standing; at which point the subject makes stronger resistance, double or three-double angles.

As healthy, the individual has moved themself actively from day to day, and from year to year. When this was not able to preserve the body from an abnormal condition...the active movement ceased to be an advantage for this body. Here begins the passive movement...

The parts which are in disharmony must be brought back into harmony through external inputs, when the health means harmony in the parts.

One would think that the cause of illness could be traced to the major [most visible] form; but its prominence is only a consequence, as said before, and becomes thus only a sign of illness; the minor basic form is the failing one, and in the failing, is the cause of illness.

Notes

Medical gymnastics was brought to this country in the late 19th century by physician George Taylor of New York, aron Nils posse in Boston, and Hartvig Nissen in Washington D.C. It was popularly known as the Swedish Movement Cure. Swedish massage and kinesiotherapy are direct descendants of medical gymnastics.

SECTION FIVE: THE PRINCIPLES OF AESTHETIC GYMNASTICS

Aesthetic gymnastics, in which a person tries to express their inner nature, [that is], thoughts and feelings, by means of gestures.

...by means of aesthetic gymnastics, a person expresses the unison which exists between their spiritual and physical existence.

Outline

1. Introduction to aesthetic gymnastics.
2. _____
3. The artist's independence.
4. About the dynamic potency of our body.
5. Preparation to aesthetic movements.

Quotes

...aesthetic gymnastics tries to put the body in full balance with the soul. It thus teaches to correctly express in the body, a thought or a feeling, by means of given positions and movements.

One could yet say that in the aesthetic gymnastics, it is more the soul which work on the body, and in the educational [gymnastics] it is more the body that works on the soul.

Every independent movement, which is accompanied by my soul perceived as pure idea, is thus a thought, bodily expressed. - This thought must lie within the organism's ability to express. - As such, the organism is only an organ of the thought; but then this organ must express this thought in every part; otherwise the expression becomes at least dark, if not false. The one who wants to express tenderness and [yet] clinches the hand, is telling something totally different with their body than what the thought wants to say.

If I hand a paper to someone with an extended arm and wrist, in a totally straight line, this form will express a hostility, a definance, or a distain, in common language: "Here you have it." If I give [the paper] with a round movement at the wrist and the elbow; then it expresses friendship and respect - and the hand, first turned toward myself, before it approaches the object, kind of saying: "Look here, from me to you."

The head and neck. The first is the place of honor of the dynamic agent; and the same agent gets its external moveable expression in the latter [neck] and [is] even more essential in: the tools of the mind.

That one can educate the human tools of the mind to an incredible dexterity through truly executed gymnastics is for sure.

The thumb: signifies firmness and determination...The forefinger: is educating and refers to a specific object...The middle finger: expresses calm and recover... it is the ruler in all directions of the hand...The ring finger:is seldom used alone...The Little finger:expresses lightness and grace.

Notes

Aesthetic gymnastics were never developed to the point of being taught at the Central Institute, nor are there any manuals related to them.

SECTION SIX: THE VEHICLES OF GYMNASTICS

Outline

1. The gymnast's personality.
2. The gymnast's look and manner.
3. Discipline among the pupils. (Equality, morality, marches)
4. Food.
5. Bathing. (Fresh air, cleanliness)
6. Clothing.
7. Recreation. (Wrestling and competitions)
8. Gymnastic apparatus.
9. Gymnastic terminology.

Quotes

As educational gymnastics has a medical aim and many minor ailments can be cured by it; and since medical gymnastics should ultimately blend with it, and every educated person ought to learn how to carry his body correctly and gracefully, and every healthy individual ought to be able to defend himself and his country when in danger, it follows that a knowledge of aesthetic and military gymnastics is required of a properly educated gymnast if he is to take an active part in all branches of physical education.

May anatomy - that holy Genesis, which reveals the great work of the Creator to the eye of man, and teaches him at one and the same time how small and yet how great he is - be the gymnasts' most treasured fu damental principle; but let him contemplate these forms - not as if they were lifeless ones - but...as though they were living, not as constituting an inert mass, but the instrument of the soul, animated with the latter throughout. This requires the inseparable consort of Anatomy - Physiology.

Exercsies in summer-time, and during winter snowballing, skating and tobogganing, should take place in the open air. Fresh air is the source of health of all living things.

Competitions in powerful, one-sided movements, should be sparingly indulged in. Those which are a combination of different positions and varying tempo are not so hazardous, because the very changes make the movement less violent. Hence wrestling is beneficial; it gives rise to many different positions, and every movement arouses the mind of a sluggish youth.

To arrange our physical exercises in accordance with the apparatus we have already set up, instead of designing the latter in keeping with the movements we intend to perform, is a wrong method - an attempt to appear fantastic.

Notes

This chapter concerns the means by which gymnastics is carried out, therefore, Ling discusses the characteristic of a good gymnast (teacher-practitioner) and their knowledge. He also, in a sketchy way, acknowledges his view of a complete gymnastics as a broad field dealing with a hygienic regimen aimed at developing and maintaining health ala Plato and Galen. This section was translated by Richard Cyriax and appeared in the American Physical Education Review in April 1914.

TO SWEDISH GYMNASTS

Over thiry years I have studied and practiced gymnastics. During this time, gymnasts and physicians have stepped forth and written about this subject. To present a new subject in a new way is an undertaking full of doubts.

What I have related here, I have often repeated to the gymnasts I have educated, more or less broken up [in fragmentary form]. Thus, [there] is not much new for them here, and yet this book is actually written to gymnasts. If I have thought through my subject in the right way, and clearly presented it, these paragraphs could be of benefit [to gymnasts] anyway; because the truth has the picture of Eternity: it never grows old.

In all times and countries, great heroes, physicians and philosophers [have] been zealously in favor of body building; but through the rawness and recklessness of the athletes, the gymnastics fell, both of the Greeks and the Romans, after soft luxury allured the people to rather be spectators than participant in a game of struggle. So shall the regenerated zealousness toward gymnastics die out within a few generations, if physicians and gymnasts do not get closer to it scientifically. Both have already started to write, [and] write frequently, about gymnastics, but they do not understand each other. The first [physician] is missing a sense for movement, and the latter [gymnast] a sense for scientific research. The advocates of gymnastics may proclaim that thousands of healthy [people] have become more brave and stronger through gymnastics, that thousands of ill [people] who used medication in vain, have become healthy by gymnastics; all this does not prove what gymnastics is or should be anyway; because its adversary [some physicians] are answering rightly that there have been millions of healthy [people] become stronger and stronger by chemical influence only. Thus, it is not in this way that the benefits and necessity of gymnastics is proven. The reasons must be taken from the laws of the human organism; first then the idea of gymnastics can be presented correctly.

This is the plan of this book, and if I have succeeded in the performance, it will be easier for the gymnast to realize if and how his intervention can be beneficial for different individuals, not only after their previous condition, but also with respect to previous inborn or occassional defects in them. Now, may what I have mentioned, not be seen [as] too much in a book like this!

To first clear a field is difficult, then to improve it is easier, to maintain and reap is the easiest; yet the last farmer never thinks about the first; because he only calculates his own trouble. The same forgetfulness is waiting for me too, I know that; but I pray to the Lord that future physicians and educators may, one after another, broaden and improve these efforts of mine; because then might gymnastics regain the same great importance for the Nordic person as it had in the minds of Plato, Hippocrates and Galen.

Stockholm 1834

Ling.